UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 6,917,489 B2
DATED : July 12, 2005
INVENTOR(S) : Ju-Il Lee

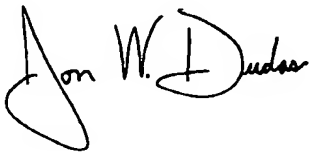
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page,
Delete the figure, and replace with the attached figure.

Drawings,
Sheet 1 of 2, delete the figure 2 in its entirety and replace with the attached figure.

Signed and Sealed this

Fourth Day of October, 2005



JON W. DUDAS
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Lee

(10) **Patent No.: US 6,917,489 B2**
(45) **Date of Patent: Jul. 12, 2005**

(54) **APPARATUS AND METHOD FOR PERFORMING SEEK-SERVO ROUTINE OF HARD DISK DRIVE**

(75) Inventor: **Ju-Il Lee**, Gumi-si (KR)

(73) Assignee: **Samsung Electronics Co., LTD**, Suwon-si (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 419 days.

(21) Appl. No.: **10/073,898**

(22) Filed: **Feb. 14, 2002**

(65) **Prior Publication Data**

US 2002/0196578 A1 Dec. 26, 2002

(30) **Foreign Application Priority Data**

Feb. 22, 2001 (KR) 2001-8999

(51) **Int. Cl.**[7] **G11B 5/596**
(52) **U.S. Cl.** **360/78.06**
(58) **Field of Search** 360/78.06, 78.05, 360/78.07; 318/560; 327/553

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Assistant Examiner—K. Wong
(74) *Attorney, Agent, or Firm*—Robert E. Bushnell, Esq.

(57) **ABSTRACT**

A seek-servo apparatus and method used by a hard disk drive is capable of making the actual position of a head correctly follow the target position of the head irrespective of time delay. The seek-servo apparatus of a hard disk drive is capable of moving a head to a desired track location, and includes an actuator which moves the head to the desired track location in response to an acceleration command having a target acceleration, which leads a target velocity and a target position by a predetermined time. Therefore, the head can be correctly positioned at a desired location on a desired track in real time, and the time for the head to read/write information can be significantly shortened.

22 Claims, 2 Drawing Sheets

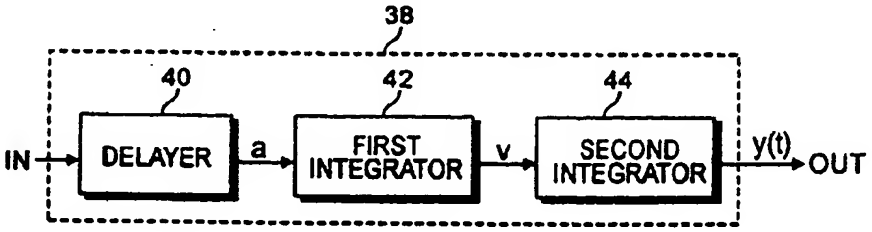

FIG. 1

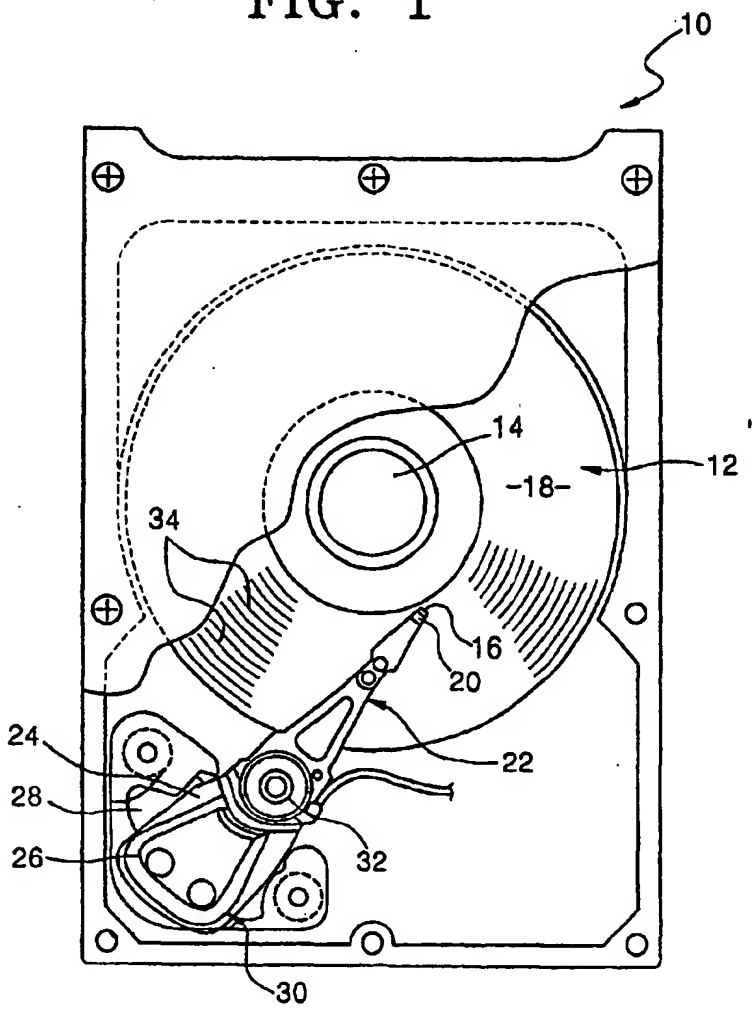
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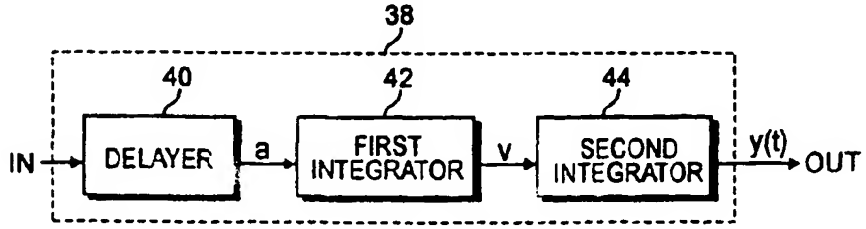
FIG. 2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42
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IN
DELAYER
a
FIRST INTEGRATOR
v
SECOND INTEGRATOR
y(t)
OUT